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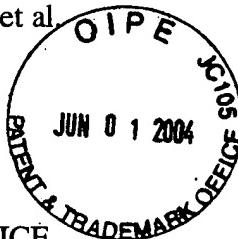
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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Scott A. Lloyd et al ) Attorney Docket No. JAIC.66141  
Serial No. 09/272,922 ) Examiner: Charles E. Anya  
Filed: March 19, 1999 ) Art Unit: 2126  
Title: METHOD AND DEVICE )  
IMPLEMENTING A SEAMLESS )  
USER/SERVICE RESERVATION NETWORK )



**DECLARATION OF DAVID S. McINALLY**  
**UNDER 37 CFR § 1.131**

1. I am a joint inventor of the subject matter disclosed and claimed in the above identified patent application, along with the other two inventors named therein.
2. I am familiar with the patent application and what it discloses and claims.
3. The subject matter disclosed in the patent application was conceived sometime prior to June of 1997. Appended as Exhibit 1 is a true copy of a document entitled "GOLFSWITCH" that was prepared August 12, 1997 to describe the subject matter as it was then conceived. Exhibit 1 contains a description of the subject matter that is disclosed and claimed in the patent application.
4. The accompanying Appendix sets forth in column form each current patent claim in one column and the part of Exhibit 1 that describes the subject matter of the corresponding claim in the other column. Exhibits 1A-1H are accurate reproductions of selected pages in Exhibit 1 that are referenced in the Appendix for convenience. The subject matter of all of the current patent claims was conceived at least by August 12, 1997, as indicated in the Appendix and the references therein to specific parts of Exhibit 1.

5. Beginning in 1997, I and others employed by or associated with the assignee of the patent application began working on the development of software implementing the invention documented in Exhibit 1.

6. Development work continued until July of 1998 when the software was successfully tested. At that time, the invention was actually practiced and the subject matter disclosed and claimed in the patent application was actually used for its intended purpose in a test that was successfully carried out.

7. Appended as Exhibit 2 is a true copy of a document that details the man hour effort devoted to developing the subject matter of the invention in the time period of June 1997 (when the development work started) until July 1998 (when the subject matter of the invention was actually reduced to practice, successfully operated, and performed its intended purpose). The work I did is accurately shown as Exhibit 2 in the column for "David", and the work of others listed on Exhibit 2 is accurate to the best of my knowledge.

8. The subject matter disclosed and claimed in the patent application was actually reduced to practice and successfully tested in July of 1998 and was not thereafter abandoned, suppressed or concealed. The invention that was reduced to practice and actually operated to perform its intended function at that time is what the current patent claims describe.

9. Between July of 1998 and December of 1998, and thereafter, I and others employed or associated with the assignee of the application continued working on and enhancing the software used to practice the invention.

10. Between early December 1998 and the time the application was filed in March of 1999, work continued on the development and enhancement of the software. Work was also ongoing, and continuous during this time period toward applying for a patent, including discussions and research about whether the invention is patentable, what aspects are important to

patent, how to go about applying for a patent, how much a patent might cost, how to find a patent attorney to help with the process, and related issues.

11. In early March of 1999 following research into the patent process and its expected costs, and research relating to patent attorneys best suited to provide patent assistance as to the technology involved in the inventions, the firm of Shook, Hardy & Bacon ("SHB") was contacted and engaged to prepare and file the patent application.

12. On March 8, 1999, representatives of the assignee of the application met with attorneys from SHB to discuss the application and provide a description of the invention.

13. Following the March 8 meeting, a provisional application was filed on March 16, 1999 followed by the filing of this application on March 19, 1999.

14. From at least early December of 1998 until the time this application was filed, I and the other two inventors were continuously diligent in getting information and preparing the documentation necessary to prepare and file the patent application.

15. All acts set forth in this Declaration were performed in the United States, including all work relating to the conception, the actual reduction to practice and the preparation and filing of the patent application.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed this 17 day of MAY, 2004 at 814 DELAWARE ST, H.D., CA, 92548

David S. McInally  
\_\_\_\_\_  
David S. McInally

# **GOLFSWITCH**

**August 12, 1997**

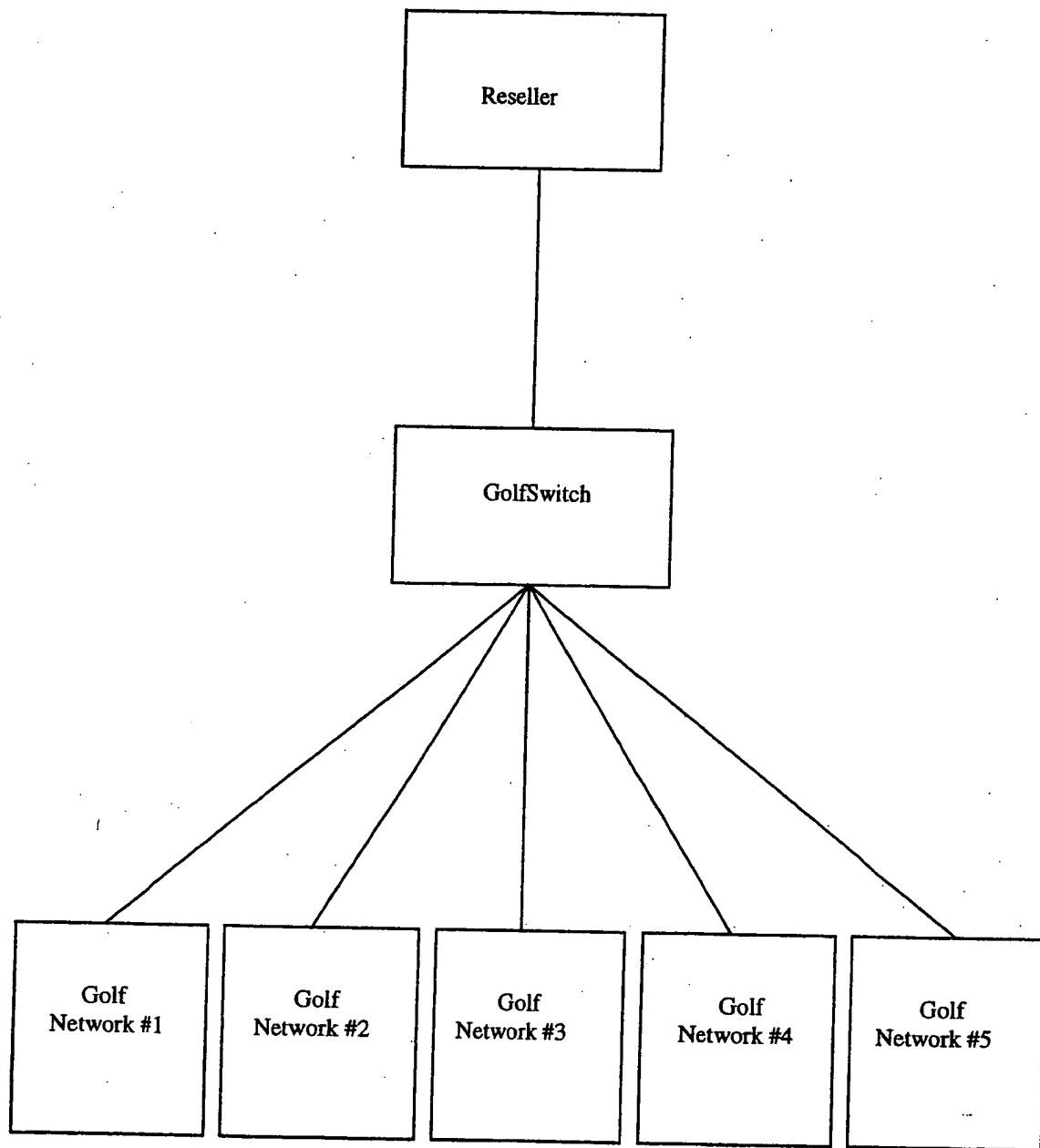
*Proprietary and Confidential*

## 1. INTRODUCTION

The ANDS Golfswitch provides a seamless single network connection between golf course network providers and their resellers. This network provides a functional suite of online transactions allowing for shopping, booking and database maintenance. As a part of the online service, ANDS provides the network communication software allowing for a minimal development effort to participate. The following list represents the suite of online transactions supported by the Golfswitch:

CATEGORY	TRANSACTION	PROCESSING
Shopping	Area Listing	Processed and responded to by Golfswitch
	Area Course Listing	Processed and responded to by Golfswitch
	Area Availability	Routed to each golf network that has courses within the specified area. Each network provider will respond with a listing of available courses and tee times meeting the criteria. The golf switch will accumulate the responses from each network and return a single response to the requesting reseller.
	Course Availability	Routed to the specific golf network that has the specified golf course on their system.
Booking	Book Tee Time	Routed to the specific golf network that has the specified golf course on their system.
	Modify Booking	Routed to the specific golf network that has the specified golf course on their system.
	Cancel Booking	Routed to the specific golf network that has the specified golf course on their system.
	Retrieve Booking	Routed to the specific golf network that has the specified golf course on their system.
Maintenance	Course	Originating from golf network to maintain the database of their golf courses on the golf switch
	Course Area	Originating from golf network to maintain the database of their golf courses assigned to specific Golfswitch areas.

## **1.1 GOLFSWITCH NETWORK OVERVIEW**



### ***Wide Area Network***

The preferred wide area network connectivity is dedicated 56KB frame relay circuits. For an additional charge, ANDS can setup a secure encrypted tunnel connection over the internet to the golfswitch. This method would require more investment up front but would yield a much smaller monthly recurring data line charge. Dial up communications will also be provided but are not recommended due to the "online" nature of the golf switch.

### ***Protocol***

The preferred protocol for the golfswitch is tcp/ip. Additional protocols will be supported if necessary for an additional setup fee.

### ***Provided Communication Software***

ANDS provides to each golfswitch customer a communications software package as part of the subscription. This package provides multi-threaded tcp/ip connectivity to the golfswitch running on a MS Windows NT platform. Software functions written in the "C" programming language for each transaction are available for customizing to fit the customers specific reservation system needs. The actual communication routines are already written, tested and transparent. This allows for rapid development and minimal integration time thus reducing cost significantly.

## 2. TRANSACTION HEADER SEGMENT

All transactions through the Golfswitch contain a common header segment. This header segment must occur first within the transaction prior to any other transaction segments. The following represents the fields within this header:

Field Name	Size	Description
segment	18	GOLFA
orig_sys	3	3 letter code for originating system.
message_id	16	AlphaNumeric string to identify this specific transaction. Generated by the originating system.
orig_time	14	Time stamp when transaction originated. FORMAT: YYYYMMDDHHMMSS
resp_time	14	Time stamp when responding system responded with reply FORMAT: YYYYMMDDHHMMSS

**EXAMPLE:**

GOLFAIAWV|23599856|19970812121023|19970812121026|~

### **3. SHOPPING TRANSACTIONS**

#### ***3.1 Area List***

This transaction provides a list of the available area codes used within the Golfswitch. Golfswitch will process this message and provide the reply. This transaction is available for both Golf Networks and Resellers.

Request Transaction - AREALIST

Field Name	Size	Description
segment	18	AREALIST
country	3	Country Code. If not present, USA is defaulted
state_prov	16	State/Province Code. If not present, All states/provinces included

EXAMPLE:

GOLFA|AWVI23599856|19970812121023||~  
AREALIST|CAI~

Reply Transaction - AREA (can occur multiple times, at least 1 segment will always be returned)

Field Name	Size	Description
segment	18	AREA
reply_code	2	0 = Successful reply 1 = No Areas matching criteria
country	3	Country Code.
state_prov	16	State/Province Code.
area_code	18	Area Code

EXAMPLE:

GOLFA|AWVI23599856|19970812121023||19970812121025|~  
AREA|0|USA|CAISAN FRANCISCO|~  
AREA|0|USA|CAILOS ANGELES|~  
AREA|0|USA|CAISAN DIEGO|~  
AREA|0|USA|CAIORANGE COUNTY|~  
AREA|0|USA|CAIDISNEY LAND|~

### **3.2 Area Course List**

This transaction provides a list of the golf courses registered within a specified golfswitch area. Golfswitch will process this message and provide the reply. This transaction is available for both Golf Networks and Resellers.

#### **Request Transaction - AREACOURSE**

Field Name	Size	Description
segment	18	AREACOURSE
area_code	18	Golfswitch Area Code

#### **EXAMPLE:**

GOLFAIAWVI23599856I19970812121023I~  
AREACOURSEISAN DIEGOI~

#### **Reply Transaction - COURSE (can occur multiple times, at least 1 will always be returned)**

Field Name	Size	Description
segment	18	COURSE
reply_code	2	0 = Success 1 = No courses matching criteria
network_id	3	3 character golf course network ID
course_id	12	12 character unique golf course ID within the golf course network
course_name	30	Golf course name
addr_1	30	Address of golf course line 1
addr_2	30	Address of golf course line 2
city	30	City of golf course
state_prov	16	State or Province of golf course
postal_code	16	ZIP or Postal code of golf course
country	3	3 character country code of golf course
phone_no	16	Telephone # of golf course
holes	3	Number of holes at golf course
carts	1	"Y" carts available "N" carts not available
slope_rating	10	Course Slope Rating
classification	32	Course Classification (i.e. Executive, Championship etc...)
mens_par	3	Mens Par for course
ladies_par	3	Ladies Par for course
mens_yardage1	5	Mens yardage #1
mens_yardage2	5	Mens yardage #2
mens_yardage3	5	Mens yardage #3
mens_yardage4	5	Mens yardage #4
ladies_yardage1	5	Ladies yardage #1
ladies_yardage2	5	Ladies yardage #2

#### **EXAMPLE:**

GOLFAIAWVI23599856I19970812121023I19970812121026I~  
COURSEI0IPTT!23895ILaJolla Shores!1234 LaJolla Boulevard!!  
LaJolla!CA!99235!USA!6192234545!36!Y!  
200!63!69!7000!6900!6800!6700!6100!5900!~

### **3.3 Area Availability**

This transaction provides a list of the golf courses registered within a specified golfswitch area that have available tee times within the specified criteria. Golfswitch will route this message to all golf course networks that have courses within the specified area. Golfswitch will then wait until all Golf Networks have responded or until the 20 second time out has been reached. When either of these events occur, Golfswitch will combine the responses of the various Golf Networks and respond to the reseller with a single response. This transaction is available for Resellers only.

Request Transaction - AREA\_AVAIL

Field Name	Size	Description
segment	18	AREA_AVAIL
area_code	18	Golfswitch Area Code
network_id	3	If golf network ID is supplied, transaction is only routed to that specific network. If not supplied, all networks with courses in the specified area will receive this transaction.
start_date	8	YYYYMMDD
end_date	8	YYYYMMDD
players	2	Number of players
time_preference	1	1 = morning preference, return morning tee time availability 2 = afternoon preference, return afternoon tee time availability
holes	3	Number of holes per day
cart	1	"Y" cart requested, only respond with courses that have carts "N" cart not needed
max_fee	6	Maximum fee per player for holes specified. Right 2 positions are considered decimal positions. Example: 50 dollars would be presented as 5000.  If present, only respond with courses, dates and tee times that have fees per player for the specified # of holes that are <= provided value.

**EXAMPLE:**

GOLF|AWV|23599856|970812121023|~  
AREA\_AVAIL|SAN DIEGO||19970915|19970915|2|1|18|Y|11000|~

**Reply Transaction Segment - COURSE (can occur multiple times, at least 1 will always be returned)**

Field Name	Size	Description
segment	18	COURSE
reply_code	2	0 = Success 1 = No courses matching criteria
network_id	3	3 character golf course network ID
course_id	12	12 character unique golf course ID within the golf course network
course_name	30	Golf course name
addr_1	30	Address of golf course line 1
addr_2	30	Address of golf course line 2
city	30	City of golf course
state_prov	16	State or Province of golf course
postal_code	16	ZIP or Postal code of golf course
country	3	3 character country code of golf course
phone_no	16	Telephone # of golf course
holes	3	Number of holes at golf course
carts	1	"Y" carts available "N" carts not available
slope_rating	10	Course Slope Rating
classification	32	Course Classification (i.e. Executive, Championship etc...)
mens_par	3	Mens Par for course
ladies_par	3	Ladies Par for course
mens_yardage1	5	Mens yardage #1
mens_yardage2	5	Mens yardage #2
mens_yardage3	5	Mens yardage #3
mens_yardage4	5	Mens yardage #4
ladies_yardage1	5	Ladies yardage #1
ladies_yardage2	5	Ladies yardage #2

**Reply Transaction Segment -**

**TIMESAVAIL (occurs multiple times, one for each day within the date span)**

Field Name	Size	Description
segment	18	TIMESAVAIL
reply_code	2	0 = Success 1 = No Tee Times matching criteria
network_id	3	3 character golf course network ID
course_id	12	12 character unique golf course ID within the golf course network
date	8	YYYYMMDD
times_available	3	Number of tee times available meeting criteria

GOLFA|AWVI23599856|970812|21023|97081212026|~  
 COURSE|0|PTT|23895|LaJolla Shores|1234 LaJolla Boulevard||  
 LaJolla|CA|99235|USA|6192234545|36|Y|

TIMESAVAIL|0|PTT|23895|19970915|20|~  
 COURSE|0|PTT|23896|Miramar|9934 Miramar Boulevard||  
 San Diego|CA|99235|USA|6192387545|36|~  
 TIMESAVAIL|0|PTT|23896|19970915|45|~

### **3.4 Course Availability**

This transaction provides a list of the available tee times within the specified criteria for a specific golf course. Golfswitch will route this message to the network that has the specified course. This transaction is available for Resellers only.

#### **Request Transaction - COURSEAVAIL**

( Up to 10 COURSEAVAIL segments can be grouped within a single transaction)

Field Name	Size	Description
segment	18	COURSEAVAIL
network_id	3	3 char golf network id.
course_id	12	12 character unique golf course ID within the golf course network
start_date	8	YYYYMMDD
end_date	8	YYYYMMDD
players	2	Number of players
time_preference	1	1 = morning preference, return morning tee time availability 2 = afternoon preference, return afternoon tee time availability
holes	3	Number of holes per day
cart	1	"Y" cart requested "N" cart not needed
max_fee	6	Maximum fee per player for holes specified. Right 2 positions are considered decimal positions. Example: 50 dollars would be presented as 5000.

#### **EXAMPLE:**

GOLFA|AWV|23599856|970812|121023|~  
COURSEAVAIL|TT|23895|19970915|19970915|2|1|18|Y|11000|~

#### **Reply Transaction Segment - COURSE (Refer to section 3.3 for more details on this segment)**

#### **Reply Transaction Segment - TEETIMES**

(can occur multiple times for a given COURSE segment,  
at least 1 will always be returned for each COURSE segment)

Field Name	Size	Description
segment	18	TEETIMES
reply_code	2	0 = Success 1 = No Tee Times matching criteria
network_id	3	3 character golf course network ID
course_id	12	12 character unique golf course ID within the golf course network
date	8	YYYYMMDD date for tee time
time	4	HHMM time
avail_players	2	Available player slots for tee time
holes	3	Number of holes available for tee time
description	16	Description of holes available (i.e. "south eighteen")
fee_per_player	6	Fee per player for number of holes. Right 2 positions are considered decimal positions. Example: 50 dollars is presented as 5000
cart_fee	6	Fee per cart. Right 2 positions are considered decimal positions. Example: 50 dollars is presented as 5000

**EXAMPLE:**

GOLFAIAWV|23599856|970812121023|970812121026|~  
COURSE|0|PTT|23895|LaJolla Shores|1234 LaJolla Boulevard||  
LaJolla|CA|99235|USA|6192234545|36|~  
TEETIMES|0|PTT|23895|19970915|0630|4|18|  
SOUTH EIGHTEEN|10500|1500|~  
TEETIMES|0|PTT|23895|19970915|0634|4|18|  
SOUTH EIGHTEEN|10500|1500|~  
TEETIMES|0|PTT|23895|19970915|0638|4|18|  
SOUTH EIGHTEEN|10500|1500|~  
TEETIMES|0|PTT|23895|19970915|0744|4|18|  
SOUTH EIGHTEEN|10500|1500|~  
TEETIMES|0|PTT|23895|19970915|0952|4|18|  
SOUTH EIGHTEEN|10500|1500|~  
TEETIMES|0|PTT|23895|19970915|1142|4|18|  
SOUTH EIGHTEEN|10500|1500|~

## 4. BOOKING TRANSACTIONS

### 4.1 Book Tee Time

This transaction provides the ability to book and confirm a tee time at a specified golf course.

Request Transaction - BOOKTIME

Field Name	Size	Description
segment	18	BOOKTIME
network_id	3	If golf network ID is supplied, transaction is only routed to that specific network. If not supplied, all networks with courses in the specified area will receive this transaction.
course_id	12	12 character unique golf course ID within the golf course network
date	8	YYYYMMDD
time	4	HHMM time
players	2	Number of Players
holes	2	Number of Holes
carts	1	Number of Carts
name	40	Guest name tee time is booked under
gtd_method	2	Guarantee method CC = Credit Card VC = Voucher TA = Travel Agent or Reseller
credit_card_type	2	AX = American Express VI = Visa
credit_card_no	24	Credit Card Number
credit_card_exp	4	Credit Card expiration date MMYY
last_name_card	30	Last name on credit card account
first_name_card	30	First name on credit card account
middle_init_card	1	Middle initial on credit card account

EXAMPLE:

GOLFAIAWV1235998561970812121023||~  
BOOKTIMEPTT123895119970915109301211Johnson LarryTA|||||~

Reply Transaction Segment - BOOKREP

Field Name	Size	Description
segment	18	BOOKREP
reply_code	2	0 = Successfully booked or modified, confirmation number supplied If non zero, refer to error codes section for valid error conditions
network_id	3	3 character golf course network ID
course_id	12	12 character unique golf course ID within the golf course network
date	8	YYYYMMDD date for tee time
time	4	HHMM time
players	2	Players
holes	3	Holes
carts	1	Carts
name	40	Guest name tee time is booked under
gtd_method	2	Guarantee method CC = Credit Card VC = Voucher TA = Travel Agent or Reseller
credit_card_type	2	AX = American Express VI = Visa
credit_card_no	24	Credit Card Number
credit_card_exp	4	Credit Card expiration date MMYY
last_name_card	30	Last name on credit card account
first_name_card	30	First name on credit card account
middle_init_card	1	Middle initial on credit card account
confirmation_no	16	Tee Time confirmation number
player_cost	6	Cost per player not including tax. Right 2 positions are considered decimal positions.
total_cost	6	Total cost for booking including applicable taxes and other chargeable items. Right 2 positions are considered decimal positions.

EXAMPLE:

GOLFA|AWV|23599856|970812121023|970812121026|~  
 BOOKREP|0|PTT|23895|19970915|0930|2|18|1|~  
 |LARRY JOHNSON||||||CF299834582|9500|23500|~

#### **4.2 Modify Tee Time**

This transaction provides the ability to modify a booked tee time at a specified golf course.

##### **Request Transaction - MODBOOK**

( only 1 MODBOOK allowed per transaction )

( specific modification segments must follow the MODBOOK segment within the transaction )

Field Name	Size	Description
segment	18	MODBOOK
network_id	3	If golf network ID is supplied, transaction is only routed to that specific network. If not supplied, all networks with courses in the specified area will receive this transaction.
course_id	12	12 character unique golf course ID within the golf course network
date	8	YYYYMMDD
time	4	HHMM time
confirmation_no	16	Tee Time confirmation number

##### **Request Transaction segment - MODPLAYERS**

Field Name	Size	Description
segment	18	MODPLAYERS
action	1	A = Add number of players S = Subtract number of players
number	2	Number of players to either add or subtract to booked tee time

##### **Request Transaction segment - MODHOLES**

Field Name	Size	Description
segment	18	MODHOLES
number	2	New number of holes requested for booking.

##### **Request Transaction segment - MODCARTS**

Field Name	Size	Description
segment	18	MODCARTS
number	2	New number of carts requested for booking.

##### **Request Transaction segment - MODNAME**

Field Name	Size	Description
segment	18	MODNAME
name	40	New name for booking.

**Request Transaction segment - MODGTD**

Field Name	Size	Description
segment	18	MODGTD
gtd_method	2	Guarantee method CC = Credit Card VC = Voucher TA = Travel Agent or Reseller
credit_card_type	2	AX = American Express VI = Visa
credit_card_no	24	Credit Card Number
credit_card_exp	4	Credit Card expiration date MMYY
last_name_card	30	Last name on credit card account
first_name_card	30	First name on credit card account
middle_init_card	1	Middle initial on credit card account

**EXAMPLE:**

```

GOLFAIAWV|23599856|970812121023|~  

MODBOOKIPTT|23895|19970915|0930| CF299834582|~  

MODPLAYERS|A1|~  

MODCARTS|2|~  

MODNAME|IBM SALES|~
```

Reply Transaction Segment - BOOKREP

Field Name	Size	Description
segment	18	BOOKREP
reply_code	2	0 = Successfully booked or modified, confirmation number supplied If non zero, refer to error codes section for valid error conditions
network_id	3	3 character golf course network ID
course_id	12	12 character unique golf course ID within the golf course network
date	8	YYYYMMDD date for tee time
time	4	HHMM time
players	2	Players
holes	3	Holes
carts	1	Carts
name	40	Guest name tee time is booked under
gtd_method	2	Guarantee method CC = Credit Card VC = Voucher TA = Travel Agent or Reseller
credit_card_type	2	AX = American Express VI = Visa
credit_card_no	24	Credit Card Number
credit_card_exp	4	Credit Card expiration date MMYY
last_name_card	30	Last name on credit card account
first_name_card	30	First name on credit card account
middle_init_card	1	Middle initial on credit card account
confirmation_no	16	Tee Time confirmation number
player_cost	6	Cost per player not including tax. Right 2 positions are considered decimal positions.
total_cost	6	Total cost for booking including applicable taxes and other chargeable items. Right 2 positions are considered decimal positions.

EXAMPLE:

GOLFA|AWV|23599856|970812121023|970812121026|~  
 BOOKREP|0|PTT|23895|19970915|0930|3|18|2|  
 IBM SALES||||||CF299834582|9500|34500|~

### **4.3 Cancel Tee Time**

This transaction provides the ability to cancel a booked tee time at a specified golf course.

Request Transaction - CXLBOOK

Field Name	Size	Description
segment	18	CXLBOOK
network_id	3	Golf network ID
course_id	12	12 character unique golf course ID within the golf course network
date	8	YYYYMMDD
time	4	HHMM time
confirmation_no	16	Tee Time confirmation number

EXAMPLE:

GOLFAIAWV|23599856|970812121023|~-  
CXLBOOKPTT|23895|19970915|0930|CF299834582|~

Reply Transaction Segment - CXLBOOKREP

Field Name	Size	Description
segment	18	CXLBOOKREP
reply_code	2	0 = Successfully cancelled, cancellation number supplied If non zero, refer to error codes section for valid error conditions
network_id	3	3 character golf course network ID
course_id	12	12 character unique golf course ID within the golf course network
date	8	YYYYMMDD date for tee time
time	4	HHMM time
players	2	Players
holes	3	Holes
carts	1	Carts
confirmation_no	16	Tee Time confirmation number
cancellation_no	16	Tee Time cancellation number

EXAMPLE:

GOLFAIAWV|23599856|970812121023|970812121026|~-  
BOOKREP|0|PTT|23895|19970915|0930|3|18|2|  
|IBM SALES|||||CF299834582|9500|34500|~

#### **4.4 Retrieve Booked Tee Time**

This transaction provides the ability to retrieve a booked tee time at a specified golf course.

Request Transaction - GETBOOK

Field Name	Size	Description
segment	18	GETBOOK
network_id	3	Golf network ID
course_id	12	12 character unique golf course ID within the golf course network
date	8	YYYYMMDD
time	4	HHMM time
confirmation_no	16	Tee Time confirmation number

EXAMPLE:

GOLFAIWV1235998561970812121023||~  
GETBOOKIPPT123895119970915109301CF299834582|~

Reply Transaction Segment - BOOKREP

Field Name	Size	Description
segment	18	BOOKREP
reply_code	2	0 = Successfully retrieved, If non zero, refer to error codes section for valid error conditions
network_id	3	3 character golf course network ID
course_id	12	12 character unique golf course ID within the golf course network
date	8	YYYYMMDD date for tee time
time	4	HHMM time
players	2	Players
holes	3	Holes
carts	1	Carts
name	40	Guest name tee time is booked under
gtd_method	2	Guarantee method CC = Credit Card VC = Voucher TA = Travel Agent or Reseller
credit_card_type	2	AX = American Express VI = Visa
credit_card_no	24	Credit Card Number
credit_card_exp	4	Credit Card expiration date MMYY
last_name_card	30	Last name on credit card account
first_name_card	30	First name on credit card account
middle_init_card	1	Middle initial on credit card account
confirmation_no	16	Tee Time confirmation number
player_cost	6	Cost per player not including tax. Right 2 positions are considered decimal positions.
total_cost	6	Total cost for booking including applicable taxes and other chargeable items. Right 2 positions are considered decimal positions.

EXAMPLE:

GOLFAIAWV123599856197081212102319708121210261~  
 BOOKREP10PTT12389519970915109301318121  
 IBM SALES|||||CF299834582195001345001~

## 5. MAINTENANCE TRANSACTIONS

### 5.1 Course Maintenance

This transaction provides the ability for the Golf Network to maintain their courses on the Golfswitch. This transaction is initiated by the Golf Network and is processed as an online transaction.

Request Transaction Segment - COURSEMAINT

Field Name	Size	Description
segment	18	COURSEMAINT
action	1	U = Update if record already exists, if not Add record D = Delete record
network_id	3	3 character golf course network ID
course_id	12	12 character unique golf course ID within the golf course network
course_name	30	Golf course name
addr_1	30	Address of golf course line 1
addr_2	30	Address of golf course line 2
city	30	City of golf course
state_prov	16	State or Province of golf course
postal_code	16	ZIP or Postal code of golf course
country	3	3 character country code of golf course
phone_no	16	Telephone # of golf course
holes	3	Number of holes at golf course

**EXAMPLE:**

GOLFAIAWVI23599856I970812121023I970812121026I~  
COURSEMAINTIUIPTTI23895ILaJolla ShoresI1234 LaJolla BoulevardII  
LaJollaCAI99235IUSAI6192234545I36I~

Reply Transaction Segment - COURSEMAINTREP

Field Name	Size	Description
segment	18	COURSEMAINTREP
reply_code	2	0 = Successfully updated/deleted If non zero, refer to error codes section for valid error conditions
network_id	3	3 character golf course network ID
course_id	12	12 character unique golf course ID within the golf course network

**EXAMPLE:**

GOLFAIAWVI23599856I970812121023I970812121026I~  
COURSEMAINTREP|0PTTI23895I~

## **5.2 Course Area Maintenance**

This transaction provides the ability for the Golf Network to assign their courses to specific Golfswitch areas. This transaction is initiated by the Golf Network and is processed as an online transaction.

Request Transaction Segment - COURSEAREA

Field Name	Size	Description
segment	18	COURSEAREA
action	1	U = Update if record already exists, if not Add record D = Delete record
network_id	3	3 character golf course network ID
course_id	12	12 character unique golf course ID within the golf course network
area_code	18	Valid Golfswitch area

**EXAMPLE:**

GOLFAIAWV123599856197081212102319708121210261~  
COURSEAREA|U|PTT123895|SAN DIEGO|~

Reply Transaction Segment - COURSEAREAREP

Field Name	Size	Description
segment	18	COURSEAREAREP
reply_code	2	0 = Successfully updated/deleted If non zero, refer to error codes section for valid error conditions
network_id	3	3 character golf course network ID
course_id	12	12 character unique golf course ID within the golf course network
area_code	18	Valid Golfswitch area code

**EXAMPLE:**

GOLFAIAWV123599856197081212102319708121210261~  
COURSEMAINTREP|0|PTT123895|SAN DIEGO|~

## 1. INTRODUCTION

The ANDS Golfswitch provides a seamless single network connection between golf course network providers and their resellers. This network provides a functional suite of online transactions allowing for shopping, booking and database maintenance. As a part of the online service, ANDS provides the network communication software allowing for a minimal development effort to participate. The following list represents the suite of online transactions supported by the Golfswitch:

CATEGORY	TRANSACTION	PROCESSING
Shopping	Area Listing	Processed and responded to by Golfswitch
	Area Course Listing	Processed and responded to by Golfswitch
	Area Availability	Routed to each golf network that has courses within the specified area. Each network provider will respond with a listing of available courses and tee times meeting the criteria. The golf switch will accumulate the responses from each network and return a single response to the requesting reseller.
	Course Availability	Routed to the specific golf network that has the specified golf course on their system.
Booking	Book Tee Time	Routed to the specific golf network that has the specified golf course on their system.
	Modify Booking	Routed to the specific golf network that has the specified golf course on their system.
	Cancel Booking	Routed to the specific golf network that has the specified golf course on their system.
	Retrieve Booking	Routed to the specific golf network that has the specified golf course on their system.
Maintenance	Course	Originating from golf network to maintain the database of their golf courses on the golf switch
	Course Area	Originating from golf network to maintain the database of their golf courses assigned to specific Golfswitch areas.

## 4. BOOKING TRANSACTIONS

### 4.1 Book Tee Time

This transaction provides the ability to book and confirm a tee time at a specified golf course.

Request Transaction - BOOKTIME

Field Name	Size	Description
segment	18	BOOKTIME
network_id	3	If golf network ID is supplied, transaction is only routed to that specific network. If not supplied, all networks with courses in the specified area will receive this transaction.
course_id	12	12 character unique golf course ID within the golf course network
date	8	YYYYMMDD
time	4	HHMM time
players	2	Number of Players
holes	2	Number of Holes
carts	1	Number of Carts
name	40	Guest name tee time is booked under
gtd_method	2	Guarantee method CC = Credit Card VC = Voucher TA = Travel Agent or Reseller
credit_card_type	2	AX = American Express VI = Visa
credit_card_no	24	Credit Card Number
credit_card_exp	4	Credit Card expiration date MMYY
last_name_card	30	Last name on credit card account
first_name_card	30	First name on credit card account
middle_init_card	1	Middle initial on credit card account

EXAMPLE:

GOLFA|AWVI|23599856|970812|121023||~  
BOOKTIME|PTT|23895|19970915|0930|2|1|Johnson Larry|TA||||||~-

### ***Wide Area Network***

The preferred wide area network connectivity is dedicated 56KB frame relay circuits. For an additional charge, ANDS can setup a secure encrypted tunnel connection over the internet to the golfswitch. This method would require more investment up front but would yield a much smaller monthly recurring data line charge. Dial up communications will also be provided but are not recommended due to the "online" nature of the golf switch.

### ***Protocol***

The preferred protocol for the golfswitch is tcp/ip. Additional protocols will be supported if necessary for an additional setup fee.

### ***Provided Communication Software***

ANDS provides to each golfswitch customer a communications software package as part of the subscription. This package provides multi-threaded tcp/ip connectivity to the golfswitch running on a MS Windows NT platform. Software functions written in the "C" programming language for each transaction are available for customizing to fit the customers specific reservation system needs. The actual communication routines are already written, tested and transparent. This allows for rapid development and minimal integration time thus reducing cost significantly.

### **3.3 Area Availability**

This transaction provides a list of the golf courses registered within a specified golfswitch area that have available tee times within the specified criteria. Golfswitch will route this message to all golf course networks that have courses within the specified area. Golfswitch will then wait until all Golf Networks have responded or until the 20 second time out has been reached. When either of these events occur, Golfswitch will combine the responses of the various Golf Networks and respond to the reseller with a single response. This transaction is available for Resellers only.

Request Transaction - AREA\_AVAIL

Field Name	Size	Description
segment	18	AREA_AVAIL
area_code	18	Golfswitch Area Code
network_id	3	If golf network ID is supplied, transaction is only routed to that specific network. If not supplied, all networks with courses in the specified area will receive this transaction.
start_date	8	YYYYMMDD
end_date	8	YYYYMMDD
players	2	Number of players
time_preference	1	1 = morning preference, return morning tee time availability 2 = afternoon preference, return afternoon tee time availability
holes	3	Number of holes per day
cart	1	"Y" cart requested, only respond with courses that have carts "N" cart not needed
max_fee	6	Maximum fee per player for holes specified. Right 2 positions are considered decimal positions. Example: 50 dollars would be presented as 5000.
		If present, only respond with courses, dates and tee times that have fees per player for the specified # of holes that are <= provided value.

**EXAMPLE:**

```
GOLFA|AWVI23599856|970812121023|~-  
AREA_AVAIL|SAN DIEGO||19970915|19970915|2|1|18|Y||11000|~
```

### **3.4 Course Availability**

This transaction provides a list of the available tee times within the specified criteria for a specific golf course. Golfswitch will route this message to the network that has the specified course. This transaction is available for Resellers only.

#### **Request Transaction - COURSEAVAIL**

( Up to 10 COURSEAVAIL segments can be grouped within a single transaction)

Field Name	Size	Description
segment	18	COURSEAVAIL
network_id	3	3 char golf network id.
course_id	12	12 character unique golf course ID within the golf course network
start_date	8	YYYYMMDD
end_date	8	YYYYMMDD
players	2	Number of players
time_preference	1	1 = morning preference, return morning tee time availability 2 = afternoon preference, return afternoon tee time availability
holes	3	Number of holes per day
cart	1	"Y" cart requested "N" cart not needed
max_fee	6	Maximum fee per player for holes specified. Right 2 positions are considered decimal positions. Example: 50 dollars would be presented as 5000.

#### **EXAMPLE:**

GOLFA|AWV|23599856|970812121023||~  
COURSEAVAIL|PTT|23895|19970915|19970915|2|1|18|Y|11000|~

#### **Reply Transaction Segment - COURSE (Refer to section 3.3 for more details on this segment)**

#### **Reply Transaction Segment - TEETIMES**

(can occur multiple times for a given COURSE segment,  
at least 1 will always be returned for each COURSE segment)

Field Name	Size	Description
segment	18	TEETIMES
reply_code	2	0 = Success 1 = No Tee Times matching criteria
network_id	3	3 character golf course network ID
course_id	12	12 character unique golf course ID within the golf course network
date	8	YYYYMMDD date for tee time
time	4	HHMM time
avail_players	2	Available player slots for tee time
holes	3	Number of holes available for tee time
description	16	Description of holes available (i.e. "south eighteen")
fee_per_player	6	Fee per player for number of holes. Right 2 positions are considered decimal positions. Example: 50 dollars is presented as 5000
cart_fee	6	Fee per cart. Right 2 positions are considered decimal positions. Example: 50 dollars is presented as 5000

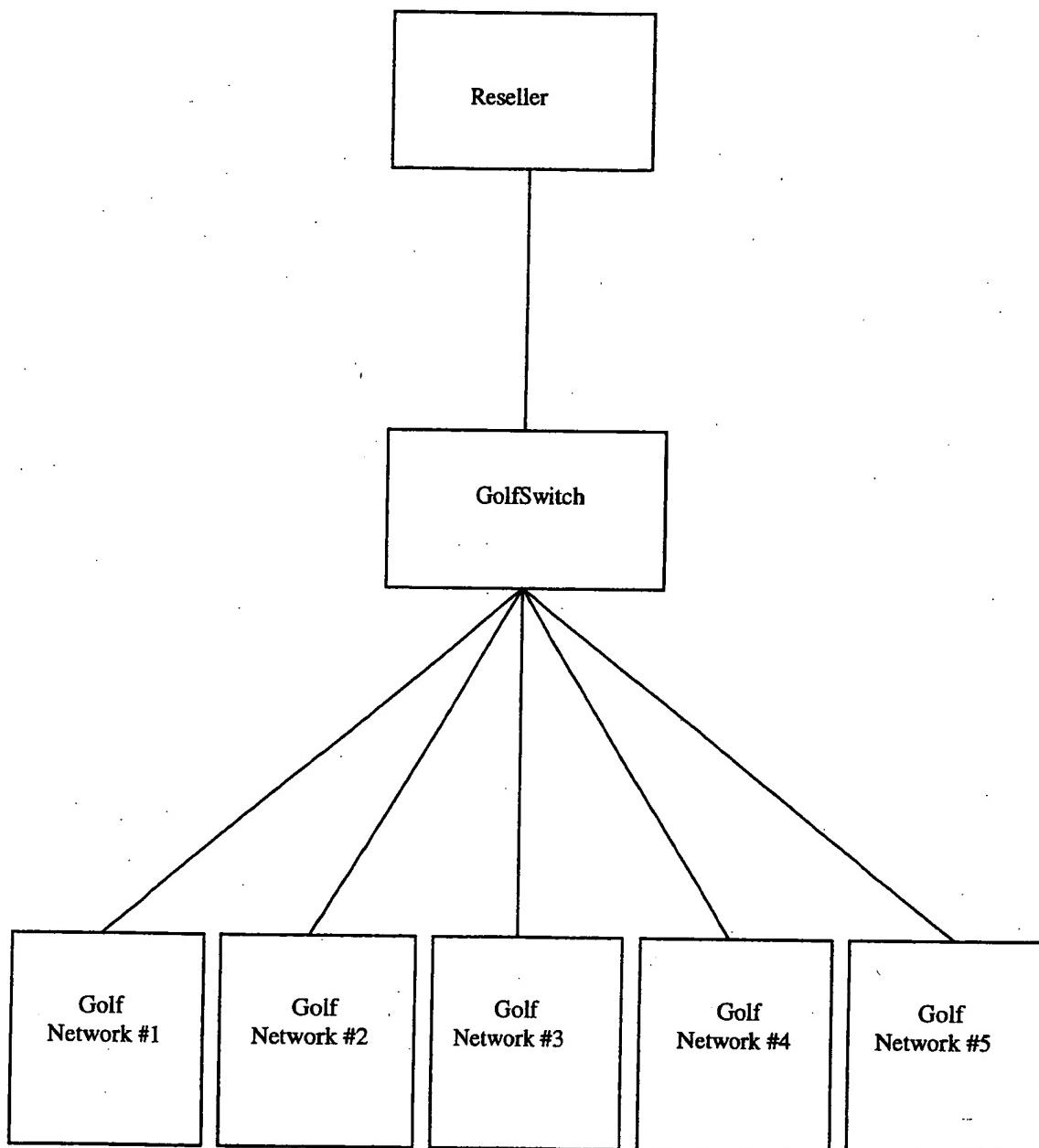
Reply Transaction Segment - BOOKREP

Field Name	Size	Description
segment	18	BOOKREP
reply_code	2	0 = Successfully booked or modified, confirmation number supplied If non zero, refer to error codes section for valid error conditions
network_id	3	3 character golf course network ID
course_id	12	12 character unique golf course ID within the golf course network
date	8	YYYYMMDD date for tee time
time	4	HHMM time
players	2	Players
holes	3	Holes
carts	1	Carts
name	40	Guest name tee time is booked under
gtd_method	2	Guarantee method CC = Credit Card VC = Voucher TA = Travel Agent or Reseller
credit_card_type	2	AX = American Express VI = Visa
credit_card_no	24	Credit Card Number
credit_card_exp	4	Credit Card expiration date MMYY
last_name_card	30	Last name on credit card account
first_name_card	30	First name on credit card account
middle_init_card	1	Middle initial on credit card account
confirmation_no	16	Tee Time confirmation number
player_cost	6	Cost per player not including tax. Right 2 positions are considered decimal positions.
total_cost	6	Total cost for booking including applicable taxes and other chargeable items. Right 2 positions are considered decimal positions.

EXAMPLE:

GOLFA|AWV|23599856|970812121023|970812121026|~  
 BOOKREP|0|PTT|23895|19970915|0930|2|18|1|  
 |LARRY JOHNSON||||||CF299834582|9500|23500|~

## **1.1 GOLFSWITCH NETWORK OVERVIEW**



**EXHIBIT 1G**

## 5. MAINTENANCE TRANSACTIONS

### 5.1 Course Maintenance

This transaction provides the ability for the Golf Network to maintain their courses on the Golfswitch. This transaction is initiated by the Golf Network and is processed as an online transaction.

Request Transaction Segment - COURSEMAINT

Field Name	Size	Description
segment	18	COURSEMAINT
action	1	U = Update if record already exists, if not Add record D = Delete record
network_id	3	3 character golf course network ID
course_id	12	12 character unique golf course ID within the golf course network
course_name	30	Golf course name
addr_1	30	Address of golf course line 1
addr_2	30	Address of golf course line 2
city	30	City of golf course
state_prov	16	State or Province of golf course
postal_code	16	ZIP or Postal code of golf course
country	3	3 character country code of golf course
phone_no	16	Telephone # of golf course
holes	3	Number of holes at golf course

EXAMPLE:

GOLFA|AWVI23599856I970812121023I970812121026I~  
COURSEMAINTIUIPTTI23895ILaJolla ShoresI1234 LaJolla BoulevardII  
LaJolla|CA|99235|USA|6192234545I36I~

Reply Transaction Segment - COURSEMAINTREP

Field Name	Size	Description
segment	18	COURSEMAINTREP
reply_code	2	0 = Successfully updated/deleted If non zero, refer to error codes section for valid error conditions
network_id	3	3 character golf course network ID
course_id	12	12 character unique golf course ID within the golf course network

EXAMPLE:

GOLFA|AWVI23599856I970812121023I970812121026I~  
COURSEMAINTREP|0|PTTI23895I~

## MAN HOUR EFFORT FOR GOLFSWITCH DEVELOPMENT

	Scott	David	Glenn	W.H.	Brandon	George	Nancy	Mike	Total
Jun-97	60	0	0	0	0	0	0	0	60
Jul-97	60	0	0	0	0	0	0	0	60
Aug-97	120	0	0	0	0	0	0	0	120
Sep-97	120	0	0	0	0	0	0	0	120
Oct-97	120	0	0	0	0	80	0	0	120
Nov-97	100	120	0	0	100	120	0	0	200
Dec-97	120	120	120	100	100	176	0	0	540
Jan-98	176	176	176	100	100	176	0	0	756
Feb-98	176	176	176	100	100	176	0	0	924
Mar-98	176	176	176	100	100	176	80	20	1024
Apr-98	176	176	176	100	100	176	176	40	1140
May-98	150	176	160	100	100	176	60	20	4060
Jun-98	150	176	150	100	100	176	0	20	882
Jul-98	150	176	0	0	0	176	0	20	772
									522
TOTAL	1854	1472	1134	800	1608	492	160	660	8180
COST/Hour	\$48.00	\$48.00	\$24.00	\$30.00	\$14.00	\$33.00	\$15.00	\$35.00	
COST	\$133,488.00	\$105,984.00	\$40,824.00	\$36,000.00	\$33,768.00	\$24,354.00	\$3,600.00	\$34,650.00	\$412,668.00

\* Cost = ( total hours \* cost per hour ) \* 1.5

Total Hand Cost  
 Hand Cost  
 60 48X60  
 60 48X120  
 48X120

Total Hand Cost

Total Cost

## APPENDIX

CLAIM	CORRESPONDING ELEMENT CONCEPTION PROOF
72. (New): A golf tee-time reservation system for implementing seamless real time access to one or more golf courses, said system comprising:	Exhibit 1A – “seamless single network connection”
means for inputting a tee-time request;	Exhibit 1B
means for interfacing a protocol with one or more different protocols;	Exhibit 1C – “multi-threaded tcplip connectivity”
means for issuing one or more tee-time transactions to one or more golf course reservation systems;	Exhibit 1D – “route...to all golf course networks”
means for displaying one or more tee-time schedules; and	Exhibit 1E – “list of available tee times”
means for reserving one or more tee-times from said one or more golf course in real time.	Exhibit 1F – “Successfully booked”
73. (New): The golf tee-time reservation system of claim 72, wherein said means for inputting a tee-time request comprises a graphical user interface.	Exhibit 1C – pc/internet system using pc graphics
74. (New): The golf tee-time reservation system of claim 73, wherein said graphical user interface comprises a networked based interface.	Exhibit 1C – ‘Wide Area Network’
75. (New): The golf tee-time reservation system of claim 74, wherein said networked based interface is the Internet.	Exhibit 1C – “Connection over the internet”
76. (New): The golf tee-time reservation system of claim 72, wherein said means for interfacing a single protocol with one or more different protocols comprises a computer server.	Exhibit 1C – “tunnel connection over the internet”
77. (New): The golf tee-time reservation system of claim 76, wherein said computer server comprises a software translation package for interfacing said protocol with said one or more different protocols.	Exhibit 1C – “communication software package”
78. (New): The golf tee-time reservation system of claim 76, wherein said computer server is coupled with said graphical user interface.	Exhibit 1G – “Reseller” and “GolfSwitch” are coupled
79. (New): The golf tee-time reservation system of claim 76, wherein said computer server is one or more computing components.	Exhibit 1C

80. (New): The golf tee-time reservation system of claim 72, wherein said means for issuing one or more tee-time transactions to one or more golf course reservation systems utilizes real time concurrent processing for obtaining one or more tee-time schedules from said one or more golf course reservation systems.	Exhibit 1A – “Routed to each golf network”
81. (New): The golf tee-time reservation system of claim 80, wherein said real time concurrent processing is performed using a central processing unit.	Exhibit 1G – GolfSwitch” module
82. (New): The golf tee-time reservation system of claim 81, wherein said central processing unit divides said one or more tee-time transactions into multiple subprocesses for processing within one clock cycle.	Exhibit 1B
83. (New): The golf tee-time reservation system of claim 72, wherein said means for displaying one or more tee-time schedules is displayed using said graphical user interface.	Exhibit 1E
84. (New): The golf tee-time reservation system of claim 72, wherein said means for reserving one or more tee-time schedules is an available tee-time for said one or more tee-time schedules.	Exhibit 1B
85. (New): The golf tee-time reservation system of claim 72, wherein said means for reserving one or more tee-time schedules is scheduled by a user.	Exhibit 1C
86. (New): The golf tee-time reservation system of claim 85, wherein said user selects said one or more tee-time schedules using said graphical user interface.	Exhibit 1C, 1B
87. (New): An external golf tee-time reservation system for implementing seamless real time access to one or more internal golf course reservation systems, said system comprising:	Exhibit 1A
a user input module having an interface capable of receiving one or more tee-time requests;	Exhibit 1B, 1G – “Reseller” module
an interface module processing said request as real time transactions; and	Exhibit 1G – “GolfSwitch” module
a vendor service module linking said external golf tee-time reservation system to said one or more internal golf reservation systems.	Exhibit 1G – “Golf Network” modules
88. (New): The external golf tee-time reservation system of claim 87, wherein said user input module comprises a networked based interface.	Exhibit 1A

89. (New): The external golf tee-time reservation system of claim 88, wherein said networked based interface is the Internet.	Exhibit 1C – “over the internet”
90. (New): The external golf tee-time reservation system of claim 87, wherein said user input module is a terminal that receives said one or more tee-time requests.	Exhibit 1B
91. (New): The external golf tee-time reservation system of claim 90, wherein said terminal comprises a graphical user interface.	Exhibit 1C
92. (New): The external golf tee-time reservation system of claim 90, wherein said terminal displays information to a user.	Exhibit 1D
93. (New): The external golf tee-time reservation system of claim 87, wherein said interface module is coupled to said user interface module.	Exhibit 1G
94. (New): The external golf tee-time reservation system of claim 87, wherein said interface module comprises one or more computer servers.	Exhibit 1C
95. (New): The external golf tee-time reservation system of claim 94, wherein said one or more computer servers is a database server.	Exhibit 1C
96. (New): The external golf tee-time reservation system of claim 95, wherein said database server provides information upon request.	Exhibit 1C, 1A
97. (New): The external golf tee-time reservation system of claim 94, wherein said one or more computer servers is a system service application server.	Exhibit 1C
98. (New): The external golf tee-time reservation system of claim 97, wherein said system service application server comprises administrative tools for regulating system resources.	Exhibit 1H
99. (New): The external golf tee-time reservation system of claim 97, wherein said system service application server provides administrative reports.	Exhibit 1H
100. (New): The external golf tee-time reservation system of claim 94, wherein said one or more computer servers is a network server.	Exhibit 1C
101. (New): The external golf tee-time reservation system of claim 100, wherein said one or more network servers establishes a communication link to said vendor service module.	Exhibit 1C

102. (New): The external golf tee-time reservation system of claim 94, wherein said one or more computer servers is a customer server.	Exhibit 1C
103. (New): The external golf tee-time reservation system of claim 102, wherein said customer server administers said tee-time transactions by sending said tee-time transactions to said one or more computer servers.	Exhibit 1C
104. (New): The external golf tee-time reservation system of claim 102, wherein said customer server comprises protocol translation software.	Exhibit 1C
105. (New): The external golf tee-time reservation system of claim 104, wherein said protocol translation software translates one or more protocols into a common protocol.	Exhibit 1C
106. (New): The external golf tee-time reservation system of claim 87, wherein said one or more internal golf course reservation systems comprises individualized reservation software for coupling to said external golf tee-time reservation system.	Exhibit 1C
107. (New): The external golf tee-time reservation system of claim 87, wherein said vendor service module comprises a pre-established network for coupling said one or more internal golf course reservation systems to said external golf tee-time reservation system.	Exhibit 1C
108. (New): The external golf tee-time reservation system of claim 107, wherein said pre-established network is coupled to said user interface module.	Exhibit 1C